

Recommended References on Quantitative Risk Assessment (QRA)
and Landslide Risk Management

1. Selected Reports on QRA

Atkins Haswell (1995). *Quantitative Landslide Risk Assessment for the Squatter Villages in Lei Yue Mun*. Report prepared for the Geotechnical Engineering Office, Civil Engineering Department, Hong Kong Government.

ERM-Hong Kong Ltd (1998). *Landslides and Boulder Falls from Natural Terrain: Interim Risk Guidelines (GEO Report No. 75)*. Geotechnical Engineering Office, Civil Engineering Department, HKSAR Government, 183 p.

Fugro Maunsell Scott Wilson Joint Venture (2004). *Detailed Study of the Hillside Area below Sha Tin Heights Road (GEO Report No. 143)*. Geotechnical Engineering Office, Civil Engineering Department, HKSAR Government, 206 p.

Fugro Scott Wilson Joint Venture (2006). *Natural Terrain Landslide Risk Assessment for the Po Shan Catchment (Landslide Study Report No. LSR 4/2006)*. Geotechnical Engineering Office, Civil Engineering and Development Department, HKSAR Government, 319 p.

Lo, D.O.K. & Cheung, W.M. (2004). *Assessment of Landslide Risk of Man-made Slopes in Hong Kong (Special Project Report No. SPR 4/2004)*. Geotechnical Engineering Office, Civil Engineering and Development Department, HKSAR Government, 82 p.

Ove Arup & Partners Hong Kong Limited (2003). *Natural Terrain Hazard Study at Pat Heung, Yuen Long (Advisory Report No. ADR 1/2003)*. Geotechnical Engineering Office, Civil Engineering Department, HKSAR Government, 266 p.

Ove Arup & Partners Hong Kong Limited (2005). *Natural Terrain Hazard Study at North Lantau Expressway*. Report prepared for the Geotechnical Engineering Office, Civil Engineering and Development Department, HKSAR Government, 5 vols.

Wong, H.N. & Ko, F.W.Y. (2005). *Landslide Risk Assessment - Application and Practice (Special Project Report No. SPR. 4/2005)*. Geotechnical Engineering Office, Civil Engineering and Development Department, HKSAR Government, 311 p.

Wong, H.N. & Ko, F.W.Y. (2006). *Quantitative Risk Assessment of Landslide Hazards at Fu Yung Shan Tsuen, Tsuen Wan (Landslide Study Report No. LSR 3/2006)*. Geotechnical Engineering Office, Civil Engineering and Development Department, HKSAR Government, 187 p.

Wong, H.N., Ko, F.W.Y. & Hui, T.H.H. (2004). *Assessment of Landslide Risk of Natural Hillsides in Hong Kong (Special Project Report No. SPR 5/2004)*. Geotechnical Engineering Office, Civil Engineering and Development Department, HKSAR Government, 115 p.

Wong, H.N., Shum, W.W. L. & Ko, F.W.Y. (2004). *Assessment of Natural Terrain Landslide Risk on the Planned Development in Ling Pei, Lantau (Advisory Report No. ADR 4/2004)*. Geotechnical Engineering Office, Civil Engineering and Development Department, HKSAR Government, 173 p.

* For a full list of reports on QRA published by the Geotechnical Engineering Office, please refer to *Slope Safety Related Studies* under the Hong Kong Slope Safety Website (<http://hkss.cedd.gov.hk/hkss/index.htm>)

2. Papers on QRA

Baynes, F.J., Lee, I.K. & Stewart, I.E. (2002). A study of the accuracy and precision of some landslide risk analyses. *Australian Geomechanics*, vol. 37(2), pp 149-156.

Einstein, H.H., & Karam, K.S. (2001). Risk assessment and uncertainties. *Proceedings of the International Conference on Landslides*, Davos, pp 457-488.

EI-Ramly, H., Morgenstern, N.R. & Cruden, D.M. (2003). Quantitative risk analysis for a cut slope. *Proceedings of the 3rd Canadian Conference on Geotechnical Natural Hazards: Geohazards 2003*, Edmonton, pp 162-169.

Fell, R., Ho, K.K.S., Lacasse, S. & Leroi, E. (2005). A framework for landslide risk assessment and management. *Proceedings of the International Conference on Landslide Risk Management*, Vancouver, Canada, pp 3-25.

Hardingham, A.D., Ho, K.K.S., & Smallwood, A.R.H. (1998). Quantitative risk assessment of landslides - a case history from Hong Kong. *Proceedings of The*

Hong Kong Institution of Engineers Geotechnical Division Annual Seminar on Slope Engineering, Hong Kong, pp 145-151.

Ho, K.K.S., Leroi, E. & Roberds, W.J. (2000). Quantitative risk assessment - application, myths and future directions. *Proceedings of the International Conference on Geotechnical & Geological Engineering (GeoEng 2000)*, Melbourne, Australia, vol. 1, pp 269-312.

Ho, K.K.S. & Wong, H.N. (2001). Application of quantitative risk assessment in landslide risk management in Hong Kong. *Proceedings of the 14th Southeast Asian Geotechnical Conference*, Hong Kong, vol. 1, pp 123-128.

Hungr, O. (2002). Hazard and risk assessment in the runout zone of rapid landslides. *Proceedings of the Conference on Natural Terrain - A Constraint to Development?* Hong Kong, pp 21-38.

Hungr, O. (2004). Geotechnique and the management of landslide hazards. *Proceedings of the 57th Canadian Geotechnical Conference*, Quebec, Canada.

Hungr, O. & Rawlings, G. (1995). Assessment of terrain hazards for planning purposes: Cheekye Fan, British Columbia. *Proceedings of the 48th Canadian Geotechnical Conference*, Vancouver, Canada, vol. 1 pp 509-518.

IUGS Working Group on Landslides, Committee on Risk Assessment (1997). Quantitative risk assessment for slopes and landslides - the state of the art. *Proceedings of the International Workshop on Landslide Risk Assessment*, Honolulu, Honolulu, Hawaii, USA, pp 3-12.

Malone, A.W. (2004). The story of quantified risk and its place in slope safety policy in Hong Kong. *Landslide Hazard and Risk (Chapter 22)*, John Wiley & Sons, Ltd., edited by Glade, T., Anderson, M. & Crozier, M., pp 643-674..

Michael-Leiba, M., Baynes, F. & Scott, G. (2004). Quantitative landslide risk assessment of Cairns, Australia. *Landslide Hazard and Risk (Chapter 21)*, John Wiley & Sons, Ltd., edited by Glade, T., Anderson, M. & Crozier, M., pp 621-642.

Morgenstern, N.R. (1997). Toward landslide risk assessment in practice. *Proceedings of the International Workshop on Landslide Risk Assessment*,

Honolulu, Hawaii, USA, pp 15-23.

Mostyn, G. & Sullivan, T. (2002). Quantitative risk assessment of the Thredbo landslide. *Australian Geomechanics*, vol. 37(2), pp 169-181.

Pappin, J.W., Free, M.W. & Haley, J. (2004). Assessment of the risk from natural terrain landslides. *Proceedings of the 6th Malaysian Road Conference*, Malaysia.

Roberds, W.J. (2001). Quantitative landslide risk assessment and management. *Proceedings of the International Conference on Landslides*, Davos, pp 585-595.

Stewart, R.A. (2000). Dam risk management. *Proceedings of the International Conference on Geotechnical and Geological Engineering (GeoEng 2000)*, Melbourne, Australia, vol. 1, pp 721-748.

Wong, H.N. (2005). Landslide risk assessment for individual facilities. *Proceedings of the International Conference on Landslide Risk Management*, Vancouver, pp 237-296.

Wong, H.N. & Ho, K.K.S. (1998). Overview of risk of old man-made slopes and retaining walls in Hong Kong. *Proceedings of The Hong Kong Institution of Engineers Geotechnical Division Annual Seminar on Slope Engineering*, Hong Kong, pp 193-200.

Wong, H.N. & Ho, K.K.S. (1999). Preliminary quantification of risk of earthquake-induced failure of man-made slopes in Hong Kong. *Proceedings of The Hong Kong Institution of Engineers Geotechnical Division Annual Seminar on Geotechnical Risk Management*, Hong Kong, pp 67-76.

Wong, H.N. & Ho, K.K.S. & Chan, Y.C. (1997). Assessment of consequence of landslides. *Proceedings of the International Workshop on Landslide Risk Assessment*, Honolulu, Hawaii, USA, pp 111-149.

3. Papers on Landslide Risk Management

Australian Geomechanics Society (2000). Landslide risk management concepts and guidelines. *Australian Geomechanics*, vol. 35(1), pp 49-92.

Fell, R. & Hartford, D. (1997). Landslide risk management. *Proceedings of the International Workshop on Landslide Risk Assessment*, Honolulu, Hawaii, USA, pp 51-109.

Malone, A.W. (1998). Risk management and slope safety in Hong Kong. *Proceedings of The Hong Kong Institution of Engineers Geotechnical Division Annual Seminar on Slope Engineering*, Hong Kong, pp 3-20.

Morgenstern, N.R. (1995). Managing risk in geotechnical engineering. *Proceedings of the 10th Pan-American Conference on Soil Mechanics and Foundation Engineering*, Guadalajara, Mexico, vol. 4, pp 102-126.

Schuster, R.L. (1999). Concepts of risk-based decision making with emphasis on geotechnical engineering and slope hazards. *Proceedings of The Hong Kong Institution of Engineers Geotechnical Division 18th Annual Seminar on Geotechnical Risk Management*, Hong Kong, pp 1-21.

Wong, H.N. (2003). Natural terrain management criteria - Hong Kong practice and experience. *Proceedings of the International Conference on Fast Slope Movements: Prediction and Prevention for Risk Mitigation*, Naples, Italy.

Wong, H.N. & Ho, K.K.S. (2006). Landslide risk management and slope engineering in Hong Kong. *Proceedings of the State-of-The-Practice of Geotechnical Engineering in Taiwan and Hong Kong*, Hong Kong, pp 101-141.

4. Publications/Proceedings on Landslide Risk Management and Assessment

ANCOLD (2003). *Guidelines on Risk Assessment*. Australian National Committee on Large Dams.

Lee, E.M. & Jones, D.K.C. (2004). *Landslide Risk Assessment*. Thomas Telford Publishing, London, United Kingdom, 454 p.

Proceedings of The Hong Kong Institution of Engineers Geotechnical Division 18th Annual Seminar on Geotechnical Risk Management, Hong Kong, 14 May 1999, 205 p.

Proceedings of the International Workshop on Landslide Risk Assessment, Honolulu, Hawaii, 19-21 February 1997, 369 p.

Proceedings of the International Conference on Landslide Risk Management, Vancouver, Canada, 31 May - 3 June 2005, 764 p.

*Working Group on Application of Innovative Technology in Geotechnical Engineering
HKIE Geotechnical Division
4 October 2006*